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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

STEELMAN, MARY J

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,813

Applicant(s)

POOLE ET AL.

Examiner

Mary J. Steelman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Per Applicant's request, claims 1, 9, and 17 have been amended. The Specification has been amended. Claims 1-24 are pending.

Specification

2. In view of the amendment to the Specification, the prior objection is hereby withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,208,345 B1 to Sheard et al., in view of US Patent 6,854,107 B2 to Green et al.

Per claims 1, 9, and 17:

-system, method, article of manufacture;

(Col. 3, lines 12-13, "...visual data integration system architecture and methodology", col. 49, line 1-col. 50, line 17, "A computer readable medium tangibly embodying a program executable...(article of manufacture)".)

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-an Integrated Development Environment (IDE), executed by a computer, for creating and maintaining a multi-tier business application on a multiple tier computer network, wherein the IDE includes a Topological Multi-Tier Business application Composer that is used by a developer to graphically design, develop, maintain, build, test, debug, and deploy the multi-tier business application, the Composer includes a window and a palette, and the palette contains graphical constructs representing tiers and components of the tiers that are used to design, develop, maintain, build, test, debug, and deploy a graphical presentation of the multi-tier business application in the window.

(Col. 3, lines 16- 18, "A visual interface facilitates the design, deployment, and runtime monitoring of an integrated information system (IDE) implementation.", col. 3, lines 24-26, "Various component icons may be packaged together in business extension modules (multi-tier business application) to provide users with specific business integration capabilities", col. 6, lines 11-13, "...facilitate the design, deployment, and runtime monitoring (Composer to graphically design, develop, maintain, build, test, debug, and deploy) of an integrated information system comprising a number of disparate applications", col. 23, lines 10-14, "...user design a data integration layout when the System Integration view is active by selecting various adapters and components displayed in the palette of the visual interface. This is achieved by dragging selected adapters (icons) from the palette and dropping them onto the canvas (window)...", col. 24, lines 55-67, "...a presentation of a menu item which permits the user to invoke a distribution planning panel...provides a tree view of the network environment (Topological Multi-Tier Business application Composer) currently in operation for a selected data integration project...indicate the names of the workstations...indicates the various

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components operating on a particular workstation...indicates details of either component of queue elements...")

Sheard suggested (col. 3, lines 19-26) an integrated information system visually developed built using drag and drop of component icons (identifiers). "Various component icons...provide user with specific business integration capabilities (defined processing performed). Sheard disclosed (col. 29, lines 32-36 & 56-60, "a meta-model approach is used to provide a system wide specification of object and contained attribute definitions...Each meta defined class is stored...Each attribute consists of a single line which includes its name (identifier)..." Sheard failed to explicitly disclose:

-when creating the multi-tier business application, the developer decides on a number of tiers, identifies workstations and servers within each of the tiers, and defines processing performed by each tier and its components.

However, Green disclosed (col. 1, lines 16-21) "...the design of a software component architecture for the development of extensible tier software component applications...". Green disclosed (col. 4, lines 56-62), "the present invention provides rules to define and create a particular N-tier architecture (creating a multi-tier business application) with a specified, initial number (developer decides on a number of tiers) and type of tiers...where each initial tier satisfies one of a major portion of system functionality (defines processing performed by each tier and its components), such as business logic..." Green disclosed (col. 3, lines 14-16) "GUID

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Globally unique identifier, e.g. a number having a predetermined number of bits that uniquely identifies a software component (identifies workstations and servers). Additionally, it is inherent that correctly working software, designing a multi-tier business application would uniquely identify each component in the program.

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify Sheard's invention, to include more explicit details regarding the development of a multi-tier business application (N-tiered software architecture) as disclosed by Green because both references provide a visual interface to facilitate the design and satisfy the (Sheard, col. 2, lines 65 – 67) "need for an improved data integration system and methodology"... (col. 3, lines 5-6) "that is readily extensible." Defining the tiers and processes as disclosed by Sheard and Green provide an extensible architecture.

Per claims 2, 10, and 18:

-the icons are dragged from the palette onto the window, and thereafter connected together, in a topological structure for the multi-tier business application.

(Col. 23, lines 10-15, "...selecting various adapters and components (icons) displayed in the palette...dragging...and dropping them onto the canvas (window)....", col. 23, lines 22-23, "...selected adapters/components may be linked (connected) together...")

Per claims 3, 11, and 19:

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-the components are selected from a group comprising workstations, servers, application files, connections, data paths, user-defined processes, and other user-defined elements.

(Col. 24, lines 55-67, "...distribution planning panel...provides a tree view of the network environment currently in operation for a selected data integration project...workstations...", col. 28, line 66-col. 29, line 4, "For each workstation participating in a data integration project...", col. 29, line 19, "...communication may be effected through use of a sockets type protocol" Sheard disclosed a network environment, including servers, workstations, application files (Fig. 1) , connections (sockets), data paths (Fig. 5B), user-defined elements / processes (Fig. 20))

Per claims 4, 12, and 20:

-the composer is used to perform one or more actions selected from a group comprising:

(Col. 22, lines 3-5, "The information n the project file is used by the visual interface to render a picture of a data integration implementation (actions) on its canvas", col. 22, lines 60-62, "...layout of a data integration project is defined within the canvas of the visual interface...")

-creating the tiers involved in the multi-tier business application;

(Col. 24, line 51-col. 25, line16, "The integration of data across multiple platforms and multiple workstations is coordinated through the use of a distribution planning facility...distribution planning panel...provides a tree view of the network environment...workstations...components...")

-specifying the components of each of the tiers;

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(Col. 23, lines 10-13, "...the user designs a data integration layout when the System Integration view is active by selecting various adapters and components (specifying the components of the tiers) displayed in the palette...")

-specifying properties that identify each of the tiers and the components of the tiers.

(Col. 25, lines 17-22, "The right portion of the distribution planning panel includes a property sheet which is used to show the data associated with a selected item...property sheet presents configuration data...")

Per claims 5, 13, and 21:

-the IDE further comprises a Meta-model that captures information entered via the Composer and that persistently stores the information.

(Col. 23, lines 41-45, "Confirming the integrity of the communication channel established between two adapters is accomplished by comparing the meta-data models of the source and destination adapters and determining whether the models are compatible...", col. 29, lines 32-36, "...meta-model approach is used to provide a system wide specification of object and contained attribute definitions...", col. 29, lines 51-61, "Storage of the meta-model...using a file based approach...Each object definition is contained in a separate file ...Each meta defined class is stored...")

Per claims 6, 14, and 22:

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-the captured information is selected from a group comprising information about tiers, workstations, servers, application files, connections, data paths, user-defined processes, and other user-defined elements.

(Col. 3, lines 34-43, "Format neutral data meta-models are employed to model the input and output data requirements (captured information) of disparate systems and system components...", col. 6, lines 27-32, "These component building blocks are graphical representations of various data processing and telecommunications hardware and software elements (tiers, workstations, servers, application files, connections, data paths, user-defined processes, and other user-defined elements) ...")

Per claims 7, 15, and 23:

-the Meta-model is updated and kept in synchronization with any updates made to the multi-tier business application via the Composer.

(Col. 23, lines 47-51, "...meta-data model which indicates the data that the adapter is expecting to receive and dispatch...", col. 24, line 19, "...meta-data model issues have been resolved...(updated)", col. 25, lines 44-45, "...updating the charts dynamically...")

Per claims 8, 16, and 24:

-the Meta-model is accessible by other tools.

(Col. 23, lines 41-45, "Confirming the integrity of the communication channel established between two adapters is accomplished by comparing the meta-data models of the source and destination adapters and determining whether the models are compatible (tool compares and

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determines)...”, col. 31, lines 13-36, “Various meta-model conversion utilities (tools) may be implemented ...”)

Response to Arguments

5. Applicant's arguments with respect to claim limitations newly amended in all independent claims 1, 9, and 17 (“and when creating the multi-tier business application, the developer decides on a number of tiers, identifies workstations and servers within each of the tiers, and defines processing performed by each tier and its components”) have been considered but are moot in view of the new grounds of rejection, as US Patent 6854107 B2 to Green et al. has now been applied.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (571) 272-3704. The examiner can normally be reached Monday through Thursday, from 7:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached at (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary Steelman



02/14/2005


TUAN DAM
SUPERVISORY PATENT EXAMINER